IV. Application

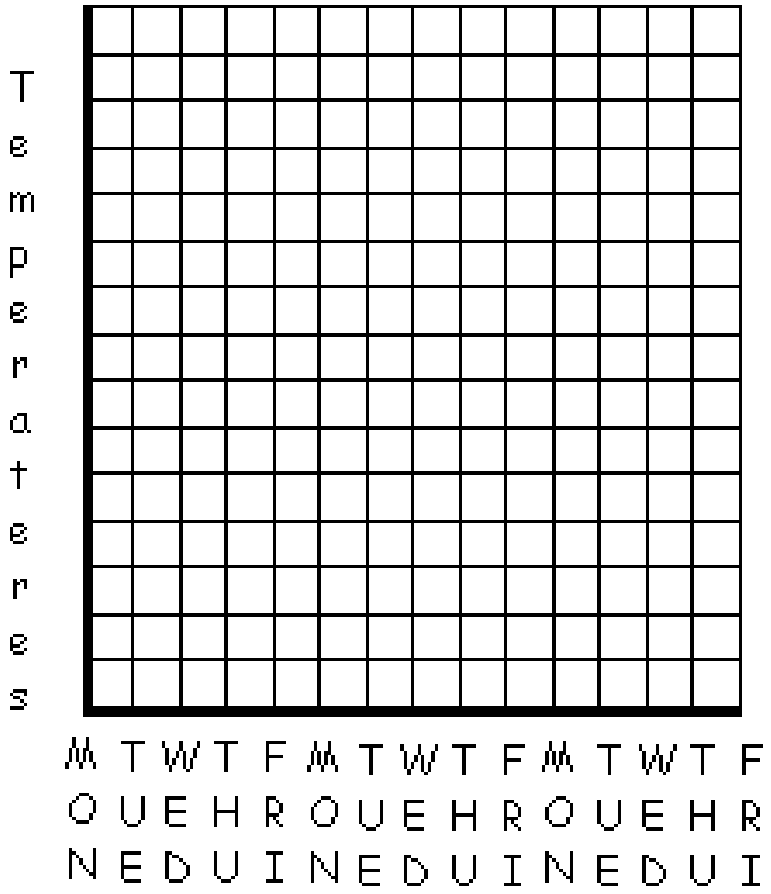
A. In Your Neighborhood - Or Close By

Pick a coastal area near where you live or one you have visited. Record the air and SST temperatures for a week (or longer). Record your data in a chart like the one below.

Day	Date	Time of Observations	Air Temperature	SST
Monday	3/23/98	9:00 a.m.	45	54
Tuesday	3/24/98	9:00 a.m.	47	55
Wednesday	3/25/98	9:00 a.m.	56	55

Graph your data on a graph like the one below. Fill in the temperatures on the y (vertical) axis. Write the days on the x axis

like in the graph below. Start your temperatures about two degrees below your lowest reading. Fill in the dates of your observations. You will need to use two different color pens or pencils (one for air temperatures, and one for SST).



1. How do you think the information gathered from the system of buoys helps people who work on the water?

_____

_____

_____

2. Who else might benefit from knowing the information collected by these buoys?

_____

_____

3. Based on data you collected about the site near where you live or have visited, what do you think the air temperature will be for;

the rest of the week? _____

the rest of the month? _____

three months from now? _____

4. If you have completed the El Nino site - What effect has El Nino had on the water and air temperatures in North America?

_____

_____

_____

_____

5. What effect has El Nino had on the area where you live?

_____

_____

_____

6. Based on what you have learned about moored buoys in the ocean, design a buoy to collect data in outer space. Give it a name, list the measurements it will collect, and draw a diagram of it.

V. Enrichment

A. Research

1. Find out what the highest and lowest air and SST are for the area where you live.

2. Interview local weather people. Find out where they get the information they use to forecast the weather.

3. Find out what marine animals live in cold water and which ones live in warm water. Divide your list into mammals, fish, invertebrates. List the location and temperature range for each organism.

4. Investigate the Inuit people (Eskimos) and how they live in cold weather and how they depend on the sea to live. Research their food, shelter, and clothing and how each relates to the sea.

5. Investigate Polynesians and how they live in warm weather and depend on the sea to live. Research their food, shelter, and clothing and how each relates to the sea.

B. Data Collection

1. If you live near the coast, keep a record of the air and water temperatures for a period of time. You can get this information from your newspaper or from the sites you visited in this activity. Graph the data you collect using a line or bar graph.

2. Collect news articles or search the web for information on El Nino and how it has affected air and water temperatures. Write a short report explaining what you found out.

3. Interview someone who fishes commercially. Ask what species are caught in warm water and what species are caught when it is cold. Make a chart listing what is caught when. Also indicate the amounts that are caught, if possible.

C. Related Web Sites

1. Interactive Marine Observations - Tides, Maps, Weather and wave conditions...
   http://www.nws.fsu.edu/buoy
2. Wind and Wave Models
   http://polar.wwb.noaa.gov/regional.waves/Welcome.html#egc.wave.t00
3. Buoy Locations, Information and Recent Data
   http://www.nodc.noaa.gov/BUOY/buoy.html
4. Graphs of monthly averages of data collected from buoys
   http://www.ndbc.noaa.gov/climate.phtml
5. National Data Buoy Center Home Page
   http://www.ndbc.noaa.gov/index.html